

**WHAT IS CLAIMED IS:**

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

- 1           1. A laminated foam board comprising:  
2           two facers disposed on opposing broad flat surfaces of said board;  
3           a foam core to which the two facers are adhered, the foam core being a closed-  
4           cell foam formed using a mixture of the methyl esters of glutaric, succinic, and adipic  
5           acid; and  
6           wherein by virtue of using the mixture a bonding strength of said facers to said  
7           foam core is greater than had the mixture not been used.
- 1           2. The apparatus of claim 1, wherein said foam board is a polyurethane  
2           laminated foam board.
- 1           3. The apparatus of claim 1, wherein said foam board is a polyurethane modified  
2           polyisocyanurate laminated foam board.
- 1           4. The apparatus of claim 1, wherein said mixture comprises methyl esters of  
2           about 59% glutaric acid, about 20% succinic acid, and about 21% adipic acid.
- 1           5. The apparatus of claim 1, wherein the foam comprises a polyol and an organic  
2           polyisocyanate, and wherein said mixture is added at an add-on rate within the range of  
3           about 0.5 to about 5.0 parts per hundred of polyol (pphpp).
- 1           6. The apparatus of claim 5, wherein said mixture is added at an add-on rate  
2           within the range of from about 1.0 to about 3.0 pphpp.
- 1           7. The apparatus of claim 1, wherein the foam core is blown with an expansion  
2           agent which includes n-pentane.
- 1           8. The apparatus of claim 1, wherein the foam core is formed with an amount of  
2           the mixture whereby a peel strength resistance for the facers is greater than 1.0 pound.

1 9. A polyurethane modified polyisocyanurate laminated foam board comprising:  
2 two facers disposed on opposing broad flat surfaces of said board;  
3 a foam core to which the two facers are adhered, the foam core being a closed-  
4 cell foam formed using a mixture of the methyl esters of glutaric, succinic, and adipic  
5 acid and utilizing n-pentane as an expansion agent, an amount of the mixture utilized  
6 being chosen to enhance adhesion of the facers to the foam core.

1 10. The apparatus of claim 9 wherein said mixture comprises methyl esters of  
2 about 59% glutaric acid, about 20% succinic acid, and about 21% adipic acid.

1 11. The apparatus of claim 9 wherein the foam comprises a polyol and an  
2 organic polyisocyanate, and wherein said mixture is added at an add-on rate within the  
3 range of about 0.5 to about 5.0 parts per hundred of polyol (pphpp).

1 12. The apparatus of claim 9 wherein said mixture is added at an add-on rate  
2 within the range of from about 1.0 to about 3.0 pphpp.

1 13. The apparatus of claim 9, wherein the amount of the mixture utilized is  
2 chosen to provide a peel strength resistance for the facers of greater than 1.0 pound.

1 14. A method of making a closed-cell polyurethane modified polyisocyanurate  
2 laminated foam board, comprising:  
3 adding to a foam formulation a mixture of the methyl esters of glutaric, succinic,  
4 and adipic acid to improve adhesion of a facer to the foam board;  
5 curing the foam formulation in a manner to provide foam core interposed  
6 between two facers adhered to the foam core.

1 15. The method of claim 14, wherein the step of adding the mixture comprises  
2 adding methyl esters of about 59% glutaric acid, about 20% succinic acid, and about  
3 21% adipic acid.

1 16. The method of claim 14, wherein the foam formulation comprises a polyol  
2 and an organic polyisocyanate, and wherein said mixture is added at an add-on rate  
3 within the range of about 0.5 to about 5.0 parts per hundred of polyol (pphpp).

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1           17. The method of claim 14, wherein said mixture is added at an add-on rate  
2 within the range of from about 1.0 to about 3.0 pphpp.

1           18. The method of claim 14, further comprising blowing the foam core with an  
2 expansion agent which includes n-pentane.

1           19. The method of claim 14, further comprising choosing an amount of the  
2 mixture to provide a peel strength resistance for the facers of greater than 1.0 pound.

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